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## AREA AND YIELD.

OF

RICE	OILSEEDS
WHEAT	JUTE
COTTON	INDIGO
SUGARCANE	

FOR VARIOUS PERIODS FROM  
1891-92 TO 1900-01

CALCUTTA  
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## NOTE

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THE Government of India issue periodically during the season estimates of the yield of certain crops. These estimates are compiled from local statements in the Statistical Department.

It has been the practice to issue, during the season, a preliminary forecast, a second estimate, and a third (and final) estimate, fuller and more precise than the first two. The summaries in the present publication are a condensation of the final estimates. They present in a connected and convenient form a record of the conditions of the season as reported at the time from each province.

Following the summaries is a set of tables in which are stated the area sown and the estimated yield of the crops. These tables are abstracts of the tables appended to the final estimates. The figures, as is well known, are not complete. Those received from Madras, for instance, do not include the zamindári area, that is, the area of large proprietary estates, which constitutes a third of the Presidency. The figures received from the Native States also are generally very defective. It should be noted too that reports are received only from provinces in which the crop is extensively grown; for instance, estimates of the yield of rice are received only from Burma, Bengal, and Madras.

CALCUTTA,  
June 14, 1901

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## AREA AND YIELD

OF

## CERTAIN CROPS

*Summary of the conditions of the season and of their effect on the crops, from 1891-92 to 1900-01*

### RICE

In Bengal the rainfall was unusually deficient in the period from July to October, and widespread injury was done to the winter crop. Deficient rain during the early part of the season also affected the autumn crop.

1891-92

In Madras too the season was adverse, the rain failing over large areas.

In Burma conditions were satisfactory.

In Bengal the autumn rainfall was general and favourable, inducing extended cultivation.

1892-93

In Madras also the season was favourable and the condition of the crop good until November when the rains failed in places.

In Burma conditions were good everywhere.

Throughout Bengal there was abnormally heavy rain, with destructive floods in east Bengal and parts of north Bihar; but on the whole the season was very favourable for winter and not unfavourable for autumn rice.

1893-94

In Madras the season was generally favourable for sowings, and though the rains of the autumn and winter injured the crop in some places, the yield was three-fourths of a full average.

In Burma the season was favourable.

Over the greater part of Bengal the late rains were favourable to winter rice which gave a better crop than had been known for some years. For the autumn rice the season was in the main favourable.

1894-95

In Madras the south-west monsoon was late and the rainfall generally partial and insufficient, but in the Northern, Central, and Deccan districts, and in Tanjore and Trichinopoly, the crop was on the whole good. Elsewhere the unfavourable character of the north-east monsoon affected the crop.

In Burma the crop suffered somewhat from insufficient rain.

The season in Bengal up to September was on the whole favourable, though rain was deficient in some districts. The deficiency was marked in September and October over large areas, and there was practically no rain in November.

1895-96

In Madras the crop generally was fair, though in some places in consequence of the failure of the early rains, the yield was small. The crop was also affected in Godavari and Kistna by floods.

In Burma the late rains were unequally distributed, but the yield, owing to the larger area sown, was satisfactory.

In Bengal the season was very unfavourable, the early withdrawal of the monsoon seriously affecting the crop. A little good was done by rain in February, but there was an extensive failure of the crop, with famine, over large areas, especially in Bihar.

1896-97

In Madras the crop was generally reported to vary from fair to good, except in Ganjam and Vizagapatam where large areas completely failed, and in the Deccan districts where there was only a half crop. In these tracts famine prevailed. Conditions were better in the southern districts.

In Burma the season was favourable and the crop excellent.

**RICE**  
1897-98

In Bengal the anxiety of the people to augment their reduced stocks of food induced them to substitute autumn rice over extensive areas for non-edible crops; and a good season for this crop was followed by a still better one for the great winter rice crop.

In Madras an extended area was sown, the increase being attributed to the heavy rainfall of the south-west monsoon. The conditions were on the whole sufficiently good, though qualified by the failure of the north-east monsoon, to produce a fair yield.

In Burma the conditions of the season were uniformly favourable.

1898-99

In Bengal the season was in the main favourable, and an extended area was placed under both autumn and winter rice. Though injury was done by floods in September in north Bihar it was confined to comparatively small areas, and the heavy rain benefited the crop beyond the submerged tracts and on high lands.

In Madras the rainfall was deficient in the northern districts and the Deccan, and excessive in the southern part of the Carnatic.

In Burma some injury was done to the crop by the failure of the rains towards the end of the season.

1899-1900

In Bengal the season was generally unfavourable to the autumn rice, the rainfall being excessive in June, July, and August, and below the average in the following months. In some districts also the autumn rice was injured by insects. The season was not, however, so unfavourable for the winter rice crop, which is far more important than the other.

In Madras heavy rain in September and October enabled the cultivators to plant rice freely, but the season did not continue to be favourable for a good yield, especially in the Deccan, Carnatic, and southern districts.

In Burma the season was good and the crop large.

1900-01

In Bengal the season was on the whole not favourable for autumn rice, the rainfall being on the whole deficient and capriciously distributed. For the winter rice also the season was not favourable, and the absence of rain at the time for sowing and transplanting led to a decline in the area sown.

In Madras the season was not unfavourable and the crop was generally satisfactory.

In Burma the crop was grown in normal conditions.

**WHEAT**

1891-92

In the Panjab the rainfall in September and October was generally very favourable, but the subsequent break and the failure of the winter rains interfered with the full growth of the plant on unirrigated land. Abnormally hot weather in March, as well as cold winds and frosts in February, injured the crop.

In the North-Western Provinces and Oudh heavy rain fell in August and September and greatly interfered with the preparation of the soil, but the moisture helped successful germination. The winter rains were delayed, but rain in February benefited the crop. Hot winds in March and April damaged the grain, especially in the western districts.

In Bengal conditions were generally unfavourable. Abnormally dry weather from October materially interfered with sowing operations and affected germination and growth, and the crop was injured by early west winds in some parts of Bihar and north and east Bengal.

In the Central Provinces the season was abnormally dry, no rain falling from October to January. The area sown was therefore restricted and the grain dried prematurely.

In Bombay the rainfall was good in Gujarat and Khandesh, but deficient in the Deccan and Karnatak. The crop suffered from adverse winds and absence of moisture in Khandesh, while elsewhere in the Deccan both unirrigated and irrigated crops suffered from the absence of the late rains. In Sind conditions were less unfavourable, but frost and westerly winds affected the crop in places.

In Berar the monsoon was characterised by excessive rain at sowing time, and the season was unfavourable, the north-east monsoon ceasing too early. The crop suffered from lack of moisture.

1892-93

In the Panjab the season was favourable, and continued rains in the winter months encouraged extensive sowings and improved prospects.

In the North-Western Provinces and Oudh the monsoon rain, scanty in the beginning, was excessive and continuous in August and September, but fine weather then supervened and

was favourable to germination: The winter rains benefited the crop, especially on unirrigated land.

### WHEAT

In Bengal the season was unfavourable owing to deficient rain at sowing time, but the winter rains were beneficial except in north Bihar, though excessive rain in February and March injured the crop.

In the Central Provinces rain in October was favourable on the whole, though excessive in Nagpur. The crop was greatly injured by rust.

In Bombay the late rains were sufficient in Gujarat, conditions were favourable to extended cultivation in the Deccan and the Karnatak, and seasonable rain and sufficient inundation encouraged sowings in Sind.

In Berar the season was favourable. The monsoon arrived late and this fact encouraged sowings of wheat, though excessive rain in October interrupted sowings in places. The crop suffered from blight in January and from stormy weather in March.

1893-94

In the Panjab the season was very favourable. The winter rains were copious and most seasonable, though the crop was injured by rust in places, especially on low-lying lands.

In the North-Western Provinces and Oudh the monsoon set in unusually early and rain was excessive and continuous from July to October. Dry weather continued to the end of December, and rain in January and February was generally beneficial, but the crop was greatly injured by high winds and rust.

In Bengal also the early rains were excessive, but prolonged drought afterwards, and the absence of the winter rains until February, seriously affected the crop. Prospects were further impaired by wet and cloudy weather late in the season.

In the Central Provinces sowings in Nagpur were greatly restricted in consequence of the losses from rust in 1892-93.

In Bombay the monsoon rainfall was excessive for kharif sowings and the area left unsown was utilised for wheat in the eastern Deccan. Sufficient late rain encouraged sowings in the Karnatak, but elsewhere wheat was replaced by cotton and oilseeds. In Sind the absence of rain and consequent insufficient inundation restricted sowings.

In Berar the season was good, though it varied considerably in different districts, the rainfall in some being excessive.

1894-95

In the Panjab the monsoon rain was excessive and floods ensued in the central districts, but the monsoon ceased early, and the winter rain was sufficient. The harvest was excellent.

In the North-Western Provinces and Oudh the continuance of excessively heavy rain, especially in the central and eastern districts, caused a slight contraction in the area sown. Wet and cloudy weather and strong winds considerably affected the crop and shrivelled the grain.

In Bengal, in consequence of the late arrival of the monsoon rain, the area sown was restricted, and the crop was seriously affected by prolonged drought from November to the middle of January.

In the Central Provinces the area was greatly contracted, the crop suffered severely from heavy rain at the time of sowing, and excessive moisture favoured the spread of fungoid disease in many districts.

In Bombay and Sind the season was on the whole favourable, and the yield satisfactory, although the crop suffered from cloudy weather, rust, and frost.

In Berar, owing to heavy rain at the time of sowing, the season was not so favourable, and rust was common.

In the Nizam's Territory heavy rain late in the season reduced the yield.

1895-96

In the Panjab the monsoon rains were scanty and ceased early, the winter rains were a failure, and disaster was averted only by a general fall in the end of January and the beginning of February. At sowing time no useful rain fell in any district, and the area sown was greatly restricted in unirrigated tracts dependent entirely on the rainfall; in irrigated tracts, however, there was a considerable increase. The season continued very unfavourable for land dependent on rain.

In the North-Western Provinces and Oudh the character of the season was almost exactly like that in the Panjab, but the rain of January and February did not extend beyond Meerut and Rohilkhand and part of Agra; nor was it sufficient where it fell to remove the effect of the prolonged drought over any great area.

In Bengal also the autumn rains ceased early and the winter rains failed.

In the Central Provinces and Berar the monsoon rains came to an early and abrupt termination as elsewhere. The conditions were unfavourable at sowing time and became worse later, with the result that a deficient crop was taken from a contracted area.

In Bombay and Sind the season was on the whole unfavourable, owing generally to the causes which affected the other provinces. The area and yield were both very unsatisfactory, the yield in most places being only sufficient for local consumption.

WHEAT  
1896-97

In the Panjab the monsoon rains were deficient, and sowings were restricted on unirrigated and stimulated on irrigated land. Fairly good and timely rain in November, December, and January permitted of late sowing; and copious and well distributed rain in February, March, and April, which in an ordinary year would have been injurious, was beneficial to the crop.

In the North-Western Provinces and Oudh the autumn rain was very irregular and scanty, and greatly interfered with the preparation of the land. The winter rains were generally timely and well distributed, and improved prospects; but towards the end of February strong warm west winds did considerable damage. The area sown was much less than the average, but where irrigated in time the crop was good.

In Bengal the season was very unfavourable until the end of November. Rain in December, January, and February improved the crop, but some injury was done to wheat lying on the threshing-floors by rain in March.

In the Central Provinces the winter rains were favourable except in four or five districts.

In Bombay, owing chiefly to the general failure of the late rains, sowings were greatly restricted.

In Berar there was practically no rain at sowing time. Large tracts reserved for wheat remained unsown, much of the grain that was sown failed to germinate, the area reported under wheat was hardly more than half that in 1895-96, and the crop was almost a general failure.

In Rajputana the area sown was reduced, partly by reason of deficient rainfall at sowing time and partly through the substitution of linseed and gram for wheat in consequence of successive bad harvests of wheat.

In the Nizam's Territory the season was almost equally unfavourable.

1897-98

In the Panjab the late autumn rains were sufficient and well distributed. Rain in December benefited the standing crops and encouraged further sowings, and abundant rain in February after a prolonged drought was particularly beneficial. Subsequent conditions were favourable for harvesting operations, but storms in the second half of May damaged the grain on the threshing-floors.

In the North-Western Provinces and Oudh the season was very favourable for sowing. Rain was general and well distributed except from November to January when irrigation was freely resorted to. The prolonged dry weather, and the strong wind which followed, affected the crop on unirrigated land, but it was considerably benefited by rain in February.

In Bengal the season was favourable; the autumn rain was copious and well distributed, and the crop germinated satisfactorily.

In the Central Provinces conditions were not as favourable as could have been desired, the autumn rain being insufficient for sowings. The crop suffered from insufficient moisture, but rain in February was beneficial to the late sown crop.

In Bombay the season was on the whole unfavourable, continuous and excessive rain at sowing time preventing full sowings in some places.

In Berar, too, the season was unfavourable, and the exhaustion of food-stocks during the famine induced sowings of jawar over much of the area usually reserved for wheat. No rain fell after the wheat was sown, but the unusually cold winter months and heavy dews benefited the crop.

In the Nizam's Territory the seasonal conditions were not so unfavourable as in the preceding year.

1898-99

In the Panjab conditions were on the whole not favourable. Deficient rain in August retarded sowings, there was but little rain in the succeeding months except in September, and the injury thus caused on lands not under irrigation was increased by a cold wave in January, and by rust and insects. Finally storms and high winds in May damaged the grain on the threshing-floors.

In the North-Western Provinces and Oudh the season was on the whole very favourable. The monsoon was late and the rain irregular and unevenly distributed, but it gave abundant showers and sufficient moisture at sowing time. The winter rains were timely and sufficient.

In Bengal the season was uniformly favourable; the monsoon rain was heavy, and the early subsidence of the floods left a deposit of silt which was useful to cultivation. The winter rain also was of great benefit.

In the Central Provinces the seasonal conditions were not good. The heavy autumn rain interfered with the preparation of the soil, and the sudden cessation of the monsoon in the second half of September retarded sowings and produced defective germination. No rain fell until February when it could not be expected to benefit a crop which had withered for want of moisture. Injury by hail and frost was also reported from some of the northern districts.

In Bombay the season was not on the whole favourable. The seasonable and sufficient rain which fell when the seed was being sown was interrupted later, and sowings were delayed, and it was not until September that rain fell again in quantity and improved prospects. The winter rains were also of benefit. On irrigated land conditions were fairly

good. In Sind the season was decidedly bad, and sowings were restricted owing to insufficient inundation and scanty rainfall.

In Berar the season was not unfavourable at sowing time, but the sudden cessation of the monsoon towards the end of September and the failure of the winter rains left insufficient moisture for the full development of the plants, and the grain was ill-matured and small.

In the Nizam's Territory the rains which followed sowings were generally favourable, but when the plants were arriving at maturity rats infested the fields.

## WHEAT

1899-1900

In the Panjab the monsoon rain to the end of September was partial and scanty, and in October, November, and December there was hardly any rain. About the 1<sup>st</sup> week of January, however, there was a general fall, and further rain in February, followed by showers in March and April, helped greatly in bringing the crop to maturity.

In the North-Western Provinces and Oudh the conditions of the season approximated closely to those described as prevailing in the Panjab, and the wheat crop did very well.

In Bengal the want of rain at sowing time was felt in some districts, leading to a contraction in the area sown. On the whole, the season was not favourable to wheat: the rainfall was irregular and badly distributed, and in some districts the crop suffered also from hailstorms.

In the Central Provinces the monsoon began well, but its abrupt cessation at the close of September impeded successful sowings. The October rain, which determines the successful germination of the wheat crop, was entirely absent. There was none in November and December, and the few showers which fell at the close of January were too late to do any appreciable good. The soil was dry, the heat abnormal, and the usual dews did not fall.

In Bombay the season was so bad that in many places no sowings could be made. In September the rain was deficient, and it failed altogether in November and December. Of the total area sown in the British districts of the Presidency proper, about 55 per cent was reported to have failed altogether to produce any crop; most of the crop which was obtained was brought to maturity under irrigation, but even that crop was poor in consequence of the failure of water in wells and canals.

In Berar the season was disastrously bad. Even the best black soils failed to retain enough moisture for the successful growth of wheat, and in five out of the six districts sowings were not attempted on unirrigated land. Practically whatever was grown was irrigated from wells, and in many places the wells failed. The crop was an almost absolute failure.

In the Nizam's Territory the conditions and results were similar to those in Berar.

1900-01

In the Panjab, after the heavy rains in August and September, large sowings were made on unirrigated lands, and the winter rains from December to March were so opportune throughout the province that in some districts the crops on wet lands were grown without the aid of irrigation. The crop was attacked in some districts by rust, favoured by the cloudy weather of February and March, and it had to contend in places with strong dry winds, hail, floods, excessive rain, and water-logging, as also, when the damage was caused on the threshing-floors, with untimely rain and storms. The yield was therefore smaller than might have been expected from the large area sown.

In the North-Western Provinces and Oudh the autumn rains were so distributed as to permit of the adequate preparation of the fields for sowing. There was abundant moisture in the soil, and the crop was sown in good time. Until the close of January the prospects were very bright and a full normal yield was expected; but the prolongation of the winter rains with cloudy weather into February induced rust in almost every district.

In Bengal the continuance of the winter rains into February caused serious injury to the crop which was then ripe, and in Bihar, which had promised well, there was but a poor yield.

In the Central Provinces continuous rain in August and September interfered with the preparation of land, and the absence of the usual October showers was unfavourable to sowings in some districts. Germination was generally good, and, except in Nagpur, prospects were favourable until the continued cloudy weather and rain in January and February induced rust which caused serious injury.

In Bombay the rainfall in September and October was deficient in most places, and the land did not retain sufficient moisture to allow full sowings. Practically no rain fell in November and December, and the young crop withered. Irrigated crops fared better for a time, but they also suffered from scantiness of well water, while in places in Gujarat rust, insects, and cloudy weather did harm. In the Deccan and Karnatak the crop on unirrigated lands failed almost entirely, and the yield generally was unsatisfactory. In Sind alone was the season generally good.

In Berar the monsoon rainfall was in excess of the normal, but the rains ceased suddenly at the end of September, and the land, which had become thoroughly parched during the famine year, did not retain sufficient moisture for the successful growth of wheat. No winter rain fell until the crop had come into ear, and it was then too late to be of much benefit.

WHEAT

In the Nizam's Territory sowings were not conducted in favourable conditions, the rain holding off, but some little compensation was obtained from the winter rains.  
In Rajputana and Central India both area and yield were much below the average.

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**COTTON**

1891-92

In the Panjab the season was very unfavourable. The winter rains, which had been beneficial, were followed by a long drought, and the monsoon held off until the end of July when rain was excessive. These conditions, and locusts, caused injury to both the early sowings and the late crop.

In the North-Western Provinces and Oudh the weather conditions were the same as in the Panjab, with a worse result.

In the Central Provinces the season was also unfavourable; the monsoon broke exceedingly late, and then rain was heavy and continuous, injuring the crop on low land.

In Bombay the season was bad, rain was excessive in Gujarat, and late and deficient in the south Deccan and Karnatak. In Sind the overflow of the Indus was also late and irregular.

In Madras the rains failed almost entirely during the sowing season. In the southern districts extended sowings were made of the late crop, but excessive rain later in the season injured it.

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1892-93

In the Panjab the rains were again late and sowings were greatly restricted on unirrigated lands in the east and north-east of the province. An inadequate inundation had a similar effect on irrigated land in the west. The monsoon though late was copious, and floods injured the early sowings.

Similar conditions prevailed in the North-Western Provinces and Oudh.

In the Central Provinces excessive and injurious rain fell in September and October.

In Bombay the condition of the crop in Gujarat was greatly impaired by excessive rain in September. In the Karnatak a greater extent of land than usual was placed under food-grains as a result of the scarcity of the preceding seasons, and the area under cotton was in consequence smaller than the average. In the Deccan rain was exceptionally favourable for sowing and the area was increased. In Sind sowings were restricted owing to deficient water-supply and late inundation.

In Berar the season was generally good when sowings were made, but excessive rain in September and October injured the crop.

In Madras serious injury resulted from a very deficient rainfall in the north-east monsoon.

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1893-94

In the Panjab the season was favourable, though some injury was caused by heavy floods in July.

In the North-Western Provinces and Oudh continued heavy rain from July to October, and strong winds, retarded weeding operations and greatly injured the crop.

Excessive rain restricted sowings in Bengal, while in Orissa the same result was due to insufficient rain.

In Bombay rain in November affected the crop. The late crop, owing to favourable rain at sowing, covered a large area both in the Presidency and in Sind, but afterwards excessive rain reduced the yield.

In the Central Provinces and Berar excessive rain in November reduced the expectations of a full to a fair crop.

In Madras the season was favourable. The late crop covered a large area, but conditions after sowing were unfavourable by reason of excessive rain and cloudy weather.

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1894-95

In the Panjab the area under cotton, although, owing to rain and floods, less than originally anticipated, was extraordinarily large; the monsoon was capricious but on the whole very beneficial.

In the North-Western Provinces, on the other hand, the area was slightly below the average; and heavy rain and stormy winds in October and November reduced the yield.

In Bengal owing to excessive rain the area of the early crop was below the average and the crop was affected by the late rains which interfered also with the sowing of the late crop. The weather which followed, however, was on the whole favourable.

In the Central Provinces and in Berar the rains were heavy & crop.

In Bombay the rain was excessive in Gujarat and deficient in the north and disease in the south caused further injury.

In Madras there was a restriction in the area sown with the areal, in the northern and Deccan districts, to the fact that lands usually placed under other crops, and in the southern districts mainly to the

In the Panjab the season commenced well, but after July the rainfall was sufficient and untimely, with the result that on irrigated land the crop was good land dependent entirely on rain.

In the North-Western Provinces and Oudh the rains were generally favourable, weeding operations were properly carried out, and an excellent crop was but the rainfall at the end of the season proved very scanty, and insufficient moisture the development of the plant. The yield, however, was on the whole good.

In Bengal the late sowings suffered from want of rain in October at sowing the crop was benefited by favourable weather later.

In the Central Provinces the deficiency of rain in the later months of the favoured the crop which was particularly good.

In Berar also the scantier rainfall was beneficial to the crop.

In Bombay the absence of seasonable rain for sowing, and a long break in the rainfall, sowings of early cotton. The area sown with the late crop was also below to deficiency of seasonable rain. The season was, however, on the whole a good year. In Sind there was a deficiency of water.

The sown was a little larger than the average owing to the favourable but the yield was estimated to be below the average.

rain having fallen in April, sowings were greatly contracted on unirrigated areas. But the monsoon and it ceased early; the harvest therefore depended on irrigation which the crop was bad.

In the Western Provinces and Oudh there was sufficient rain and the crop was in till the middle of August. Thereafter drought, with dry west winds, injured the crop on unirrigated lands.

The season was unfavourable, and the crop suffered from deficient rain and the early arrival of the monsoon.

In the Central Provinces the rainfall in September in many districts was very light and in October was rainless, and the plants did not bloom freely.

In Berar there was seasonable rain at sowing time, and a large area was sown, but the yield was very poor owing to the failure of the monsoon after August.

In Bombay the season was on the whole unfavourable, large tracts remaining unsown owing to drought and deficient rain in places. The drought continued more or less from the middle of August and seriously affected the crop, except in Gujarat and Sind where the season was fairly good.

In Madras also the crop suffered greatly from deficient rainfall, and in places from excessive rain.

In the Nizam's Territory a restricted area was sown, and the crop was poor.

In the Panjab sowings were restricted owing to insufficient rain and the replacement of cotton by food-grains. The yield on the restricted area was above the average.

In the North-Western Provinces and Oudh the monsoon commenced late and the crop on low lands suffered from excessive rain; but, on the whole the condition and quality of the crop were good.

In Bengal the season was on the whole favourable.

In the Central Provinces excessive and continuous rain in September and October injured the crop.

In Berar the season though a little late was on the whole favourable.

In Bombay the yield of both early and late crops was materially smaller than the average. The prospects of the crop were good until December, when it suffered from blight and locusts in many places. In Sind also the yield was comparatively small, the conditions of the season leaving much to be desired.

In Madras the rainfall was seasonable and sufficient, and an extended area was sown in the districts growing "northern" and "western" varieties, but the lateness of the monsoon contracted the area in places where Tirunelveli and Salem cotton is grown. The crop was injured by blight or drought in some of the principal cotton-growing districts.

In the Nizam's Territory the area sown was large, but owing to an unfavourable season, the yield was bad.

1896-97

1897-98

rainfall at sowing time was scanty, in August it was irregular and showers in September did much to develop and mature the crop. It was insufficient, and sowings on irrigated lands were in consequence

in the North-Western Provinces and Oudh the season was on the whole favourable, excessive rain in parts. The dry weather in October benefited the crop.

in the Central Provinces the season was unfavourable owing to the uneven character of the monsoon.

in the North-Eastern Provinces excessive rain at sowing time interrupted weeding operations in districts, and in places insufficient rain caused defective germination. Drought in the autumn.

dry weather in October and the failure of the late rains had a bad effect, was good.

In the Panjab the area under early cotton was increased in some places as a result of rains and the rotation of crops, but that increase was almost counterbalanced by in other places. The cultivation of cotton, especially in the Deccan and Karnatak, had fully recovered from the check it received in 1897-98 by an unusually large sown crops after the famine of 1896-97; and the late crop covered an area smaller than before owing to unfavourable rains and to the substitution of other crops in place of cotton.

The season was good until December, and though the crop afterwards suffered from cloudy weather in Gujarat, adverse winds in the Karnatak, and frost in Sind, the yield was abundant.

In Madras, owing partly to the unfavourable season in the Deccan districts and partly to the low price of cotton, a reduced area was sown, and the yield was very small.

In the Nizam's Territory the monsoon was late at the commencement of the season, though prospects were improved by rain in August and September.

In Rajputana the season was on the whole unfavourable owing to the dry weather in Central India the crop did well.

#### 1899-1900

In the Panjab the prospects of the crop were generally hopeful in the early part of the season, and sufficient rain at sowing time and a good supply of canal water enabled the farmers to sow an extensive area, a large proportion being on land irrigated by canals. With the holding off of rain in August and September the condition of the crop deteriorated, and the yield was poor.

In the North-Western Provinces and Oudh excessive rain in June and July was injurious to the early crop, and was also injurious to the young plant. Thereafter the absence of rain was even more injurious, especially in unirrigated tracts where the crop was entirely lost.

In Bengal in the early part of the season the rainfall was irregularly distributed, and later it was on the whole inadequate, and the yield of the crop, both early and late, was not good.

In the Central Provinces the season was one of very exceptional drought, and the plants suffered not only from want of rain but from abnormal and scorching heat.

In Berar the season was so unfavourable as to be little short of disastrous. The rainfall was deficient at the sowing season, and the subsequent drought in July prevented later sowings. The late rains also entirely failed, and with them the crop.

In Bombay the season was extremely unfavourable to the early crop, and though it was relieved here and there by partial showers in August and September, it completely failed in most places. The late sown crop also withered in many places and where it survived gave a very poor yield. In Sind the water supply was deficient and the yield poor.

In Madras the season was, on the whole, unfavourable and the yield very poor.

In the Nizam's Territory the monsoon, which promised to be favourable at the commencement of the season, failed in July and August. There was some rain in the beginning of September, but the continuance of the drought after the middle of September told heavily on the crop.

In Central India and Rajputana the conditions of the season resembled those of Bombay and Berar, and their effect on the cotton crop was quite as bad.

#### 1900-01

In the Panjab the largest area yet reported was sown, about 75 per cent on irrigated land. But the crop suffered greatly in some districts from insects, and the heavy monsoon rains also retarded growth.

In the North-Western Provinces and Oudh the monsoon commenced late, and though in June some thunderstorms gave heavy local falls in places, hot and dry weather continued until the beginning of July over the greater part of the provinces. The rain continued to be deficient and unevenly distributed until the last week of August when excellent rain was received throughout the provinces, and the fall in September was generally in excess of the average. Thereafter the weather continued generally favourable. A good yield in quantity and quality was the result.

